

SPREADSHEETS AND DATABASES

Levels: Grades 10-12
 Units of Credit: 1 Semester (.5)
 CIP Code: 52.0419
 Prerequisites: Computer Technology

COURSE DESCRIPTION

This course applies advanced concepts and principles relating to electronic spreadsheets and databases. The skills gained will be used to store data, interpret data, and create reports that would be used in making business decisions.

CORE STANDARDS

STANDARD 0000-01	Students will use a spreadsheet application to organize data and complete calculations.
OBJECTIVES 0101	Create and save a spreadsheet containing data.
0102	Change the appearance and/or format of labels and values by: <ul style="list-style-type: none"> rotating text applying text and background colors changing cell alignment wrapping text in a cell using number formats
0103	Use the AutoFill feature to: <ul style="list-style-type: none"> create series copy values, labels, and formulas
0104	Add conditional formatting to a range of cells.
0105	Use the Format Painter and Autoformat feature to format cells.
0106	Use editing features to insert, move, delete, and copy portions of the spreadsheet.
0107	Use relative and absolute cell references.
0108	Use formulas and functions to perform advanced calculations.
0109	Use the "IF" function to perform a logical test.
0110	Use VLookup/HLookup functions.
0111	View parts of a large worksheet by freezing titles and splitting the window.
0112	Use fonts, lines, borders, colors, and drop shadows to enhance spreadsheets.
0113	Answer what-if questions.
0114	Color tabs, move, copy, delete, and rename worksheets.
STANDARD 0000-02	Students will use database features in a spreadsheet.
OBJECTIVES 0201	Sort data in ascending/descending order and by multiple fields.
0202	Define and apply filters/queries.
0203	Use subtotals with lists.
STANDARD 0000-03	Students will use spreadsheet information to graph data and develop professional reports.
0301	Create and identify charts to appropriately represent various data types: <ul style="list-style-type: none"> Pie, bar, column, and line

0302	Create embedded charts and chart sheets.
0303	Resize and move embedded charts.
0304	Format chart titles and data labels.
0305	Use legends, leader lines, patterns, and shading.
STANDARD 4 000-04	Students will setup, preview, and print spreadsheets.
0401	Use options in page setup to: <ul style="list-style-type: none"> • Fit worksheet on one page (scaling) • Print with gridlines • Change page orientation from portrait to landscape • Create custom page headers and/or footers
0402	Use options to print: <ul style="list-style-type: none"> • A selection of cells • Multiple sheets
0403	Display and print formulas on a worksheet.
STANDARD 5 0000-05	Students will use database application software to create and manage tables.
0501	Describe databases and database management systems.
0502	Identify components of a database window.
0503	Define the following terms: field, record, table, relational database, and primary key.
0504	Create tables; enter and edit fields and records.
0505	Restructure a table; add and delete fields; change field names and properties.
0506	Rename, preview, and print tables.
STANDARD 6 0000-06	Students will use queries in a database.
0601	Create queries in design view and using a wizard.
0602	Edit queries by adding, deleting, moving, and hiding fields.
0603	Use text, wildcard, numeric, compound, and comparison operators in query criteria.
0604	Sort queries.
0605	Change field properties in a query.
0606	Join tables in a query.
0607	Rename, preview, and print queries.
STANDARD 7 0000-07	Students will create forms and reports in a database.
0701	Create forms and reports using the Autoform/Autoreport and form/report wizard features.
0702	Enter and edit data using a form.
0703	Open, save, close, and rename forms and reports.
0704	Modify the design of forms and/or reports by: <ul style="list-style-type: none"> • Moving, resizing, and adding fields and/or labels • Changing field properties
0705	Rename, preview, and print forms and/or reports.
STANDARD 8 (Optional) 0000-08	Students may participate in the following enrichment activities.
0801	MOUS Certification Concurrent Enrollment Courses Explore careers associated with technological advances in computer technology Explore Internet Web sites that focus on new computer technology